

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Anthony Waldrop, Steven W. Josey, and Gettys H. Knox
Serial Number: 09 / 224,980
Filed: January 4, 1999
For: **ULTRAVIOLET RESISTANT UPHOLSTERY**
Group Art Unit: 1771
Examiner: Jenna Leigh Befumo

BRIEF ON APPEAL UNDER 37 CFR 1.192

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Certificate of Mailing Under 37 CFR § 1.8

I hereby certify that this correspondence, and all correspondence referenced herein as being enclosed with this correspondence, is being deposited with the United States Postal Service in an envelope addressed to "Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450" with sufficient postage on September 26, 2003.

Signature:

Alissa D. Kohlman

Name: Alissa D. Kohlman

Sir:

The following Appeal Brief is submitted pursuant to the Notice of Appeal filed on or about July 31, 2003, from the Final Office Action dated May 1, 2003.

I. REAL PARTY IN INTEREST

The above-referenced application is the subject of an assignment to Milliken Research Corporation, located at 920 Milliken Road, Spartanburg, South Carolina, which is the real party in interest.

10/02/2003 SSEESEA 00000107 03224980

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II. RELATED APPEALS & INTERFERENCES

Appellant is not aware of any other appeal or interference that will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 15-21 have been rejected and are the subject of this Appeal.

IV. STATUS OF AMENDMENTS

No Amendments were filed after the Final Office Action.

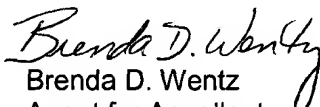
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The Commissioner is hereby authorized to charge the Appeal Brief fee of \$320.00 to Deposit Account No. 04-0500. The Commissioner is also authorized to charge any additional fees that may be required, or credit any over-payment, to Deposit Account No. 04-0500. This Appeal Brief is being submitted in triplicate.

September 26, 2003

Milliken & Company
Legal Department, M-495
920 Milliken Road
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Respectfully submitted,


Brenda D. Wentz
Agent for Appellant
Registration No. 48,643
Tel. (864) 503-1597

CLAIMS

15. A textile comprising:
a set of first yarns interwoven with a set of second yarns, wherein:
said first yarns comprising monofilament elastomeric UV stabilized yarn; and
said second yarns comprising textured polyester and elastomeric UV stabilized yarns.
16. The textile according to Claim 15, wherein said first yarns comprise a bicomponent, core sheath yarn, and wherein said sheath component is characterized by a melting point which is at least 30F below the melting point of the core component.
17. The textile according to Claim 15, wherein said first yarn set and said second yarn set are interwoven in a barathea weave.
18. The textile according to Claim 15, wherein said first yarns comprise a 2250 denier yarn.
19. The textile according to Claim 18, wherein the weave density of said first yarn set is about 20 ends per inch.
20. The textile according to Claim 15, wherein said second yarns comprise a 2200 denier yarn.
21. The textile according to Claim 20, wherein the weave density of said second yarn set is about 20 picks per inch.

V. SUMMARY OF THE INVENTION

The subject application is directed to automotive upholstery fabrics, and more particularly, to elastomeric automotive upholstery fabrics possessing resistance to ultraviolet (UV) irradiation.

Claim 15 is directed to a textile comprising a first set of yarns interwoven with a second set of yarns. The first yarns (i.e. the warp yarns) are monofilament elastomeric UV stabilized yarn, and the second yarns (i.e. the fill yarns) are textured polyester and elastomeric UV stabilized yarns.

The present invention, in one embodiment, is directed to the textile described above wherein the first yarns are further characterized as bicomponent, core/sheath yarns having a sheath component with a melting point that is at least 30 degrees F below the melting point of the core component (claim 16). In an alternate embodiment, the first and second yarns are interwoven in a baratheia weave (claim 17). The present invention, in yet another embodiment, is directed to the textile described above wherein the first yarns are comprised of 2250 denier yarn (claim 18). These first yarns are further characterized in another embodiment by having a weave density of about 20 ends per inch (claim 19). The second yarns, in an alternate embodiment, are comprised of 2200 denier yarn (claim 20). These second yarns are further characterized in another embodiment by having a weave density of about 20 picks per inch (claim 21).

These features of the present invention are described, for example, in Example 1 on page 6 of the specification.

VI. ISSUES

At issue in the present Appeal are:

A. Whether Claims 15-21 are properly rejected under 35 USC 103(a) as being unpatentable over Gretzinger et al. (US Patent 4,469,739) in view of Stumpf et al. (US Patent 6,035,901); and

B. Whether Claims 15-21 are properly rejected under 35 USC 103(a) as being unpatentable over Stumpf et al. (US Patent 6,035,901) in view of Gretzinger et al. (US Patent 4,469,739).

VII. GROUPING OF CLAIMS

Appellant respectfully submits that all of the claims stand together.

VII. ARGUMENT**A. Whether Claims 15-21 are unpatentable under 35 USC 103(a) over Gretzinger et al. in view of Stumpf et al.**

The Office has rejected Claims 15-21 as being unpatentable under 35 USC §103(a) over Gretzinger et al. in view of Stumpf et al.

Gretzinger et al. disclose a woven furniture support material which is intended for use as an under layer support material to a surface fabric in seat bottoms and backs, while Stumpf et al. disclose a fabric for use in a seating surface designed for indoor office furniture.

More specifically, Gretzinger et al. teach weaving thermoplastic elastomer monofilaments (the fill yarns) in one direction and natural or synthetic yarns (the warp yarns), which may contain minor amounts of elastomer, in the perpendicular direction. Gretzinger et al. also teach that the thermoplastic elastomer monofilaments may be comprised of copolyetherester elastomer, a polyurethane elastomer, or a polyesteramide elastomer. Gretzinger et al. further teach that the thermoplastic elastomer monofilaments may be a sheath/core monofilament wherein the melting point of the sheath component is at least 20 degrees C lower than the melting point of the core component. Gretzinger et al. further teach that UV stabilizers may be added to the thermoplastic elastomer monofilament yarns (the fill yarns) when comprised of polyetherester amides (i.e., nylon yarns).

Appellant respectfully submit that Gretzinger et al. fail to teach (a) incorporating UV stabilizers in the warp yarns, (b) that the fill yarns contain a mixture of textured polyester and elastomeric UV stabilized yarns, (c) that the fabric is comprised of a barathea weave pattern, and (d) that the warp and fill yarns have the density and denier as claimed by Appellant.

It is specifically acknowledged by the Office that Gretzinger et al. "fails to teach using a textured yarn mixed with elastomeric filaments as the yarn running perpendicular to the elastomeric monofilaments." Thus, the Office combines the teachings of Stumpf et al. with Gretzinger et al. to reject claims 15-21.

The Office's argument with regard to Appellant's claims 15 and 16 is as follows:

It would have been obvious for one having ordinary skill in the art to substitute the textured yarns comprising polyester and elastomeric filaments taught by Stumpf et al. for the yarns running perpendicular to the elastomeric monofilaments taught by Gretzinger et al., since Gretzinger et al. discloses these yarns can include elastomeric material and the textured yarn would improve the hand and softness of the woven support fabric making it more comfortable to sit on. Since Gretzinger et al. discloses that it is customary to stabilize elastomeric filaments with UV stabilizers, it would have been obvious for one having ordinary skill in the art to stabilize the elastomeric material dispersed in the perpendicular yarns as well as to improve the elastomeric filaments to UV light, and in turn increase the life of the fabric.

With regard to Appellant's dependent claim 17, Gretzinger et al. fail to teach using a fabric woven into a baratheave weave. The Office specifically acknowledges this lack of disclosure; however, the Office rejected this claim stating that it would have been obvious for one having ordinary skill in the art to choose a known weave pattern based on its suitability for the intended use.

With regard to Appellant's dependent claims 18-21, Gretzinger et al. fail to teach the density or denier of the warp and fill yarns. The Office specifically acknowledges this lack of disclosure; however, the Office rejected these claims stating that it would have been obvious to one having ordinary skill in the art to choose the claimed density (i.e. picks/inch and ends/inch) and deniers, since it has been held that discovering an optimum value of a result effective variables involves only routine skill in the art.

Appellant submits that Office's reliance on Stumpf et al. to overcome the shortcomings of Gretzinger et al. is misplaced, for the reasons set forth below.

Appellant believes it to be well-established that a proper reference must be within the field of the inventor's endeavor, and also must be reasonably pertinent to the inventor's problem.

"...the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve. If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection. An inventor may well have been motivated to consider the reference when making his invention. If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it." *In re Clay*, 966 F.2d 656, 23 USPQ2d 1767 (Fed. Cir. 1992).

As to the purpose of Stumpf et al., minimizing UV degradation of the fabric, a stated objective of Appellant's invention, is not an advantage associated with the teachings of Stumpf et al. Alternatively, Stumpf et al.'s stated objectives are (a) to minimize shear forces acting on the clothing worn on the legs and torso of the user as the user tilts the chair between various positions (col. 6, lines 51-54) and (b) to position the body of the user in ergonomically desirable postures regardless of the task being performed or the intensity at which a user works (col. 7, lines 10-13).

For the reasons set forth above, Appellant respectfully asserts that Stumpf et al. is neither within the field of Appellant's invention (automotive upholstery fabric), nor is it clearly pertinent to the problem of minimizing UV degradation of the fabric, a problem clearly addressed by Appellant's invention. Therefore, Appellant believes there is no reasonable basis for concluding that Stumpf et al. would have been considered by one skilled in the particular art of automotive upholstery fabric working on the pertinent problem of minimizing UV degradation of the fabric, and respectfully submits that the combination of Gretzinger et al. with the teachings of Stumpf et al. is improper and fails to establish the *prima facie* case of obviousness required under the law.

"[I]t is necessary to consider the 'reality of the circumstances',...-- in other words, common sense -- in deciding in which field a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor...

The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness." *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

Because Stumpf et al. is non-analogous to the subject matter of the present application, there is no reasonable expectation that Appellant would have reviewed Stumpf et al. in designing an elastomeric UV resistant automotive upholstery fabric. There is no motivation to modify Gretzinger et al.'s woven furniture support material with the teachings of Stumpf et al. Therefore, Appellant believes that such a combination is an improper hindsight reconstruction of Appellant's own teachings.

Accordingly, Appellant respectfully asserts that the Office's rejection of Claims 15-21 under 35 USC §103 is improper, and respectfully requests that this rejection be reversed.

C. Whether Claims 15-21 are unpatentable under 35 USC 103(a) over Stumpf et al. in view of Gretzinger et al.

Claims 15-21 are rejected under 35 USC §103(a) as being unpatentable over Stumpf et al. in view of Gretzinger et al.

As previously discussed, Stumpf et al. disclose a fabric for use in a seating surface designed for indoor office furniture, while Gretzinger et al. disclose a woven furniture support material which is intended for use as an under layer support material to a surface fabric in seat bottoms and backs.

More specifically, Stumpf et al. teach a woven fabric with an elastomeric monofilament (corresponding to the Appellant's first set of yarns) in a first direction and a spun or textured yarn (corresponding to the Appellant's second set of yarns) in a second perpendicular direction. Stumpf et al. further teach that the spun or textured yarns can include elastic monofilaments incorporated therein.

Appellant respectfully submits that Stumpf et al. fail to teach (a) the incorporation of UV stabilizers into either the warp or fill yarn, (b) that the elastomeric yarns (the warp yarns) are sheath/core bicomponent yarns, (c) that the fabric is comprised of a barathea weave pattern, and (d) that the yarns have the density and denier as claimed by Appellant.

It is specifically acknowledged by the Office that Stumpf et al. fail to teach that the elastomeric yarns are sheath/core bicomponent yarns. Thus, the Office combines the teachings of Gretzinger et al. with Stumpf et al. to reject claims 15-21.

The Office's argument with regard to claims 15 and 16 is summarized as follows:

It would have been obvious for one having ordinary skill in the art to substitute the sheath/core bicomponent yarn taught by Gretzinger et al. for the elastomeric components in the woven seat support taught by Stumpf et al. so that the fabric can be bonded at the crossovers to increase the stability of the fabric and make it less likely to unravel. Furthermore, it would have been obvious to one having ordinary skill in the art to add UV stabilizers, as taught by Gretzinger et al., to the elastomeric filaments taught by Stumpf et al. to increase the life of the elastomeric material in the seat support by improving the elastomeric filaments resistance to UV light.

With regard to Appellant's dependent claim 17, Stumpf et al. fail to teach using a fabric woven into a barathea weave. The Office specifically acknowledges this lack of disclosure; however, the Office rejected this claim stating that it would have been obvious for one having ordinary skill in the art to choose a known weave pattern based on its suitability for the intended use.

With regard to Appellant's dependent claims 18-21, Stumpf et al. fail to teach the density or denier of the warp and fill yarns. However, the Office rejected these claims stating that it would have been obvious to one having ordinary skill in the art to choose the claimed density (i.e. picks/inch and ends/inch) and deniers, since it has been held to be within the general skill of a worker in the art to discovering an optimum value of a result effective variable (i.e. density and denier).

Appellant submits that Office's reliance on the combination of Stumpf et al. in view of Gretzinger et al. to reject claims 15-21 is improper, for the reasons set forth below.

As has been described above, to establish a prima facie case of obviousness, one must consider (a) whether there is motivation in the references themselves to combine the reference teachings, (b) whether there is a reasonable expectation of success, and (c) whether the prior art references teach all of the limitations of the claims (MPEP 2143). As has been discussed above, there is no motivation to combine Stumpf et al. with Gretzinger et al. Such a combination would not yield an elastomeric UV resistant automotive upholstery fabric.

Furthermore, Appellant submits that there is no motivation to combine the teachings of Stumpf et al. and Gretzinger et al. to create an automotive upholstery fabric comprised of elastomeric, UV resistant yarns. Because Stumpf is non-analogous to the field of Appellant's invention, the combination of Stumpf et al. with Gretzinger et al. must fall. The woven furniture support material of Gretzinger et al. and the woven chair support material of Stumpf et al. would not yield the elastomeric, UV resistant automotive upholstery fabric of Appellant's invention. Simply put, there is no reasonable expectation of success. The prior art references cited by the Office do not teach or suggest an elastomeric, UV resistant automotive upholstery fabric.

Additionally, as discussed above, because Gretzinger et al. in view of Stumpf et al. is improper as an obviousness rejection for lack of motivation to combine the references, it is Appellant's position that this combination, relying upon Stumpf et al. in view of Gretzinger et al., is improper as well. Accordingly, Appellant respectfully asserts that the Office's rejection of claims 15-21 under 35 USC §103 is improper, and respectfully requests that this rejection be reversed.

IX. CONCLUSION

For the reasons set forth above, Appellant respectfully urges that the rejections of Claims 15-21 are improper. Reversal of all rejections in this Appeal is hereby requested.

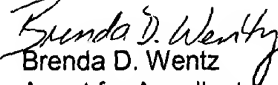
A copy of pending Claims 15-21 is attached as an appendix hereto.

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Brenda D. Wentz
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The present invention, in one embodiment, is directed to the textile described above wherein the first yarns are further characterized as bicomponent, core/sheath yarns having a sheath component with a melting point that is at least 30 degrees F below the melting point of the core component (claim 16). In an alternate embodiment, the first and second yarns are interwoven in a baratheia weave (claim 17). The present invention, in yet another embodiment, is directed to the textile described above wherein the first yarns are comprised of 2250 denier yarn (claim 18). These first yarns are further characterized in another embodiment by having a weave density of about 20 ends per inch (claim 19). The second yarns, in an alternate embodiment, are comprised of 2200 denier yarn (claim 20). These second yarns are further characterized in another embodiment by having a weave density of about 20 picks per inch (claim 21).

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VI. ISSUES

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For the reasons set forth above, Appellant respectfully asserts that Stumpf et al. is neither within the field of Appellant's invention (automotive upholstery fabric), nor is it clearly pertinent to the problem of minimizing UV degradation of the fabric, a problem clearly addressed by Appellant's invention. Therefore, Appellant believes there is no reasonable basis for concluding that Stumpf et al. would have been considered by one skilled in the particular art of automotive upholstery fabric working on the pertinent problem of minimizing UV degradation of the fabric, and respectfully submits that the combination of Gretzinger et al. with the teachings of Stumpf et al. is improper and fails to establish the prima facie case of obviousness required under the law.

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Accordingly, Appellant respectfully asserts that the Office's rejection of Claims 15-21 under 35 USC §103 is improper, and respectfully requests that this rejection be reversed.

C. Whether Claims 15-21 are unpatentable under 35 USC 103(a) over Stumpf et al. in view of Gretzinger et al.

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More specifically, Stumpf et al. teach a woven fabric with an elastomeric monofilament (corresponding to the Appellant's first set of yarns) in a first direction and a spun or textured yarn (corresponding to the Appellant's second set of yarns) in a second perpendicular direction. Stumpf et al. further teach that the spun or textured yarns can include elastic monofilaments incorporated therein.

Appellant respectfully submits that Stumpf et al. fail to teach (a) the incorporation of UV stabilizers into either the warp or fill yarn, (b) that the elastomeric yarns (the warp yarns) are sheath/core bicomponent yarns, (c) that the fabric is comprised of a barathea weave pattern, and (d) that the yarns have the density and denier as claimed by Appellant.

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It would have been obvious for one having ordinary skill in the art to substitute the sheath/core bicomponent yarn taught by Gretzinger et al. for the elastomeric components in the woven seat support taught by Stumpf et al. so that the fabric can be bonded at the crossovers to increase the stability of the fabric and make it less likely to unravel. Furthermore, it would have been obvious to one having ordinary skill in the art to add UV stabilizers, as taught by Gretzinger et al., to the elastomeric filaments taught by Stumpf et al. to increase the life of the elastomeric material in the seat support by improving the elastomeric filaments resistance to UV light.

With regard to Appellant's dependent claim 17, Stumpf et al. fail to teach using a fabric woven into a barathea weave. The Office specifically acknowledges this lack of disclosure; however, the Office rejected this claim stating that it would have been obvious for one having ordinary skill in the art to choose a known weave pattern based on its suitability for the intended use.

With regard to Appellant's dependent claims 18-21, Stumpf et al. fail to teach the density or denier of the warp and fill yarns. However, the Office rejected these claims stating that it would have been obvious to one having ordinary skill in the art to choose the claimed density (i.e. picks/inch and ends/inch) and deniers, since it has been held to be within the general skill of a worker in the art to discovering an optimum value of a result effective variable (i.e. density and denier).

Appellant submits that Office's reliance on the combination of Stumpf et al. in view of Gretzinger et al. to reject claims 15-21 is improper, for the reasons set forth below.

As has been described above, to establish a prima facie case of obviousness, one must consider (a) whether there is motivation in the references themselves to combine the reference teachings, (b) whether there is a reasonable expectation of success, and (c) whether the prior art references teach all of the limitations of the claims (MPEP 2143). As has been discussed above, there is no motivation to combine Stumpf et al. with Gretzinger et al. Such a combination would not yield an elastomeric UV resistant automotive upholstery fabric.

Furthermore, Appellant submits that there is no motivation to combine the teachings of Stumpf et al. and Gretzinger et al. to create an automotive upholstery fabric comprised of elastomeric, UV resistant yarns. Because Stumpf is non-analogous to the field of Appellant's invention, the combination of Stumpf et al. with Gretzinger et al. must fall. The woven furniture support material of Gretzinger et al. and the woven chair support material of Stumpf et al. would not yield the elastomeric, UV resistant automotive upholstery fabric of Appellant's invention. Simply put, there is no reasonable expectation of success. The prior art references cited by the Office do not teach or suggest an elastomeric, UV resistant automotive upholstery fabric.

Additionally, as discussed above, because Gretzinger et al. in view of Stumpf et al. is improper as an obviousness rejection for lack of motivation to combine the references, it is Appellant's position that this combination, relying upon Stumpf et al. in view of Gretzinger et al., is improper as well. Accordingly, Appellant respectfully asserts that the Office's rejection of claims 15-21 under 35 USC §103 is improper, and respectfully requests that this rejection be reversed.

IX. CONCLUSION

For the reasons set forth above, Appellant respectfully urges that the rejections of Claims 15-21 are improper. Reversal of all rejections in this Appeal is hereby requested.

A copy of pending Claims 15-21 is attached as an appendix hereto.